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UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK

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IRON GATE SECURITY, INC.,

Plaintiff,

-v-

LOWE'S COMPANIES, INC.,

Defendant.  
----- X

15-cv-8814 (KBF)

OPINION & ORDER

KATHERINE B. FORREST, District Judge:

Plaintiff Iron Gate Security, Inc. ("Iron Gate") commenced this action against defendant Lowe's Companies, Inc. ("Lowe's") for infringement of two patents. As to the first patent, U.S. Patent No. 6,288,641 ("the '641 Patent"), the pleadings have closed, and that claim is proceeding on the merits. As to the second patent, U.S. Patent No. 7,203,693 ("the '693 Patent"), Lowe's has moved to dismiss Iron Gate's infringement claim, which Iron Gate first alleged in Count II of the Second Amended Complaint ("SAC"), pursuant to Rule 12(b)(6). (ECF No. 41.)

In the pending motion, Lowe's argues that the '693 Patent is ineligible for patent protection under 35 U.S.C. § 101 under the Supreme Court's decision in Alice Corp. Pty. Ltd. v. CLS Bank International ("Alice"), 134 S. Ct. 2347 (2014), and its progeny. Iron Gate counters that Lowe's both oversimplifies and mischaracterizes the claimed invention and misapplies the framework set forth in Alice and the decisions that have interpreted it. The Court agrees that, at least on this pleading stage motion in light of the record before the Court, Iron Gate has the better of the

argument. The '693 Patent does not appear to be directed to an abstract idea within the meaning Alice. Moreover, even if it is so directed, the Court concludes that the '693 Patent contains an inventive concept that transforms the claims into a patent-eligible invention. Accordingly, for the reasons set forth below, the Court concludes that the '693 Patent is not ineligible for patent protection under § 101 at this stage. Lowe's motion to dismiss is therefore denied.

## I. BACKGROUND

### A. Factual Background<sup>1</sup>

On April 10, 2007, the U.S. Patent and Trademark Office issued U.S. Patent No. 7,203,693, entitled "Instantly Indexed Databases for Multimedia Content Analysis and Retrieval." (SAC ¶ 12, ECF No. 40; see also SAC, Ex. B ("693 Patent").)<sup>2</sup> The '693 Patent relates to, inter alia, "indexing multimedia data based on motion associated with a person or object." (SAC ¶ 13.) Plaintiff Iron Gate is the present owner of the '693 Patent by assignment. (SAC ¶ 15.) Defendant Lowe's offers cameras that record video and/or still images ("image data") automatically upon detecting motion; that image data is indexed on a Lowe's device and is associated with the camera that recorded the image data and/or the location where that image data was recorded. (SAC ¶ 16.) Count Two of the SAC alleges that Lowe's directly infringes "at least claim 1 of the '693 Patent" through its

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<sup>1</sup> The Court's factual recitation is drawn from the SAC and the '693 Patent, which Iron Gate appended to the SAC as Exhibit B.

<sup>2</sup> On September 11, 2001, the U.S. Patent and Trademark Office issued U.S. Patent No. 6,288,641, entitled "Assembly, And Associated Method, For Remotely Monitoring A Surveillance Area." (SAC ¶ 7.) The '641 Patent, which relates to, inter alia, the use of a mobile terminal to remotely monitor a surveillance location (SAC ¶ 8), is not at issue on this motion and, accordingly, is not discussed further.

manufacture, use, sale, offer for sale, and/or importation of its “Iris Smart Home Management System” (and its components) that indexes data in response to detecting motion. (SAC ¶ 32.)

In describing the field of the invention, the '693 Patent asserts that the “invention relates to storage of and access to multimedia data and, more particularly, to methods and apparatus for instantly indexing multimedia data associated with real time events for analysis and retrieval.” ('693 Patent at 1:29-32.) The specification explains that “none of the existing multimedia data indexing techniques permit indexing to be accomplished substantially concurrently or contemporaneously with the capture of the multimedia data” and that the “present invention introduces a new paradigm of converting a real world event in real time into a rich multimedia database by processing data from multiple sensors observing the event.” ('693 Patent at 1:47-50, 2:28-31.) The specification explains that “[m]any popular techniques detect scene changes in broadcast or production video, thereby breaking video into shots, and representing each shot by a key frame,” which allows for the indexing of multimedia data only after production. ('693 Patent at 1:40-43, 2:40-42.)

Compared to this prior art, the specification states that the claimed invention provides advantages that include: “(i) immersion in a virtual environment where the viewer can choose to view any part of the event from any desired viewpoint at any desired speed; (ii) the ability to visualize statistics and implicit information that is hidden in media data; (iii) the ability to search for, retrieve, compare and analyze

content including video sequences, virtual replays and a variety of new visualizations; and (iv) the ability to access this information in real time over diverse networks.” (’693 Patent at 17:7-16.) The specification provides an illustrative use of the invention in relation to a tennis match, but states that the “invention is not necessarily limited to use with any particular application [and] is instead more generally applicable to any event in which it is desirable to be able to index and also retrieve multimedia data in substantial concurrence or contemporaneously with its capture or collection.” (’693 Patent at 3:33-41.) In the context of the tennis match example, the specification states that the data that could be obtained might include match-set-game hierarchy data, camera parameter data, player and tournament information, baseline, service line, net information, score/winner/ace information, and 3D environment models. (’693 Patent at 7:23-31.) The specification also provides an example of a surveillance application. (See ’693 Patent at 10:26-12:45.)

The ’693 Patent asserts a total of 25 claims, including 4 independent claims and 21 dependent claims. (’693 Patent at 17:28-20:25.) The independent claims are for a method (claim 1), apparatus (claim 12), database system (claim 23) and article of manufacture (claim 24). As stated above, the SAC alleges that Lowe’s infringed “at least claim 1” of the ’693 Patent; the SAC does not enumerate any other claims.

(SAC ¶ 32.) Claim 1 states as follows:

A method for use in indexing, in a database, data associated with a domain-specific event, the method comprising the steps of:

processing sensor data obtained in accordance with the event in real time, the sensor data comprising motion data of one or more objects or one or more people associated with the domain-specific event;

obtaining pre-existing data associated with the domain-specific event; and

indexing data associated with the domain-specific event in the database, contemporaneous with capture of the data associated with the domain-specific event being indexed, based on at least a portion of the processed real time sensor data and at least a portion of the obtained pre-existing data, wherein the indexing step further comprises generating an index usable to retrieve at least a portion of the data associated with the domain-specific event by creating one or more cross-indexes between at least a portion of the processed real time sensor data and at least a portion of the obtained pre-existing data.

(’693 Patent at 17:29-50.) Claims 7, 8, and 9 are dependent on claim 1 and provide additional limitations wherein at least a portion of the data is indexed in a relational data structure, a spatio-temporal data structure, or may be visualized contemporaneously with the capture of data, respectively. (’693 Patent at 18:1-10.)

Claim 12 identifies an apparatus, which is described as follows:

Apparatus for use in indexing, in a database, data associated with a domain-specific event, the apparatus comprising:

at least one processor operative to: (i) process sensor data obtained in accordance with the event in real time, the sensor data comprising motion data of one or more objects or one or more people associated with the domain-specific event; (ii) obtain pre-existing data associated with the domain-specific event; and (iii) index data associated with the domain-specific event in the database, contemporaneous with capture of the data associated with the domain-specific event being indexed, based on at least a portion of the processed real time sensor data and at least a portion of the obtained pre-existing data, wherein the indexing operation further comprises generating an index usable to retrieve at least a portion of the data

associated with the domain-specific event by creating one or more cross-indexes between at least a portion of the processed real time sensor data and at least a portion of the obtained pre-existing data.

(’693 Patent at 18:17-38.) Claims 18 and 19 are dependent on claim 12 and add limitations wherein at least a portion of the data is indexed in a relational data structure or a spatio-temporal data structure, respectively. (’693 Patent at 18:56-61.) Claim 17 adds a limitation wherein only relevant portions of the data are stored in the database. (’693 Patent at 18:52-55.)

Claim 23 identifies a database system with the following limitations:

A database system, comprising:  
at least one processor operative to: (i) process sensor data obtained in accordance with a domain-specific event in real time, the sensor data comprising motion data of one or more objects or one or more people associated with the domain-specific event; (ii) obtain pre-existing data associated with the domain-specific event; and (iii) index data associated with the domain-specific event, contemporaneous with capture of the data associated with the domain-specific event being indexed, based on at least a portion of the processed real time sensor data and at least a portion of the obtained pre-existing data, wherein the indexing operation further comprises generating an index usable to retrieve at least a portion of the data associated with the domain-specific event by creating one or more cross-indexes between at least a portion of the processed real time sensor data and at least a portion of the obtained pre-existing data; and a database structure, coupled to the at least one processor, for storing the data in accordance with the indexing operation.

(’693 Patent at 19:5-25.)<sup>3</sup>

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<sup>3</sup> As stated above, the ’693 Patent contains one final independent claim, claim 24, for an article of manufacture. (’693 Patent at 19:26-20:21.) As neither party addressed that claim in briefing or at oral argument, the Court does not discuss it further.

B. Procedural History

Iron Gate commenced this action on November 9, 2015, asserting one cause of action against Lowe's for patent infringement of the '641 Patent. (ECF No. 1.) The action was initially assigned to the Hon. Shira A. Scheindlin. On January 13, 2016, Lowe's moved to dismiss the complaint pursuant to Rule 12(b)(6) for failure to state a claim. (ECF No. 15.) On March 16, 2016, Judge Scheindlin granted that motion in part as to willful infringement, denied it as to all remaining claims, and granted Iron Gate leave to file an amended complaint. (ECF No. 29.) On March 30, 2016, Lowe's moved for reconsideration of the Court's ruling. (ECF No. 32.) That motion was denied on April 11, 2016. (ECF No. 37.)

On April 5, 2016, Iron Gate filed an Amended Complaint that expanded its allegations of willful infringement. (ECF No. 33.) On April 13, 2016, this action was reassigned to the undersigned due to Judge Scheindlin's retirement from the bench. On April 19, 2016, Lowe's filed its answer to the Amended Complaint. (ECF No. 39.)

On May 25, 2016, Iron Gate filed the operative Second Amended Complaint, adding a second claim (Count II) against Lowe's for infringement of the '693 Patent. (ECF No. 40.) On June 13, 2016, Lowe's moved to dismiss Count II pursuant to Rule 12(b)(6) on the ground that the underlying claims were patent-ineligible under 35 U.S.C. § 101. (ECF No. 41.) Iron Gate opposed the motion on June 30, 2016. (ECF No. 47.) Lowe's filed its reply on July 11, 2016. (ECF No. 49.) On July 27, 2016, the Court held oral argument on the motion specifically directed to the parties' respective explications of the '693 Patent. (See ECF No. 53.)

## II. LEGAL STANDARDS

### A. Motion to Dismiss Standard

To survive a Rule 12(b)(6) motion to dismiss, “the plaintiff must provide the grounds upon which [its] claim rests through factual allegations sufficient ‘to raise a right to relief above the speculative level.’” ATSI Commc’ns, Inc. v. Shaar Fund, Ltd., 493 F.3d 87, 98 (2d Cir. 2007) (quoting Bell Atl. Corp. v. Twombly, 550 U.S. 544, 555 (2007)). In other words, the complaint must allege “enough facts to state a claim to relief that is plausible on its face.” Starr v. Sony BMG Music Entm’t, 592 F.3d 314, 321 (2d Cir. 2010) (quoting Twombly, 550 U.S. at 570); see also Ashcroft v. Iqbal, 556 U.S. 662, 678 (2009) (same). “A claim has facial plausibility when the plaintiff pleads factual content that allows the court to draw the reasonable inference that the defendant is liable for the misconduct alleged.” Iqbal, 556 U.S. at 678.

The Court does not, however, credit “mere conclusory statements” or “threadbare recitals of the elements of a cause of action.” Id. If the court can infer no more than “the mere possibility of misconduct” from the factual averments—in other words, if the well-pleaded allegations of the complaint have not “nudged claims across the line from conceivable to plausible,” dismissal is appropriate. Twombly, 550 U.S. at 570; Starr, 592 F.3d at 321 (quoting Iqbal, 556 U.S. at 679).

On a motion to dismiss, the Court accepts as true the factual allegations in the pleadings and draws all inferences in plaintiffs’ favor. See Iqbal, 556 U.S. at 678 (citing Twombly, 550 U.S. at 555-57). If a fact is susceptible to two or more competing inferences, in evaluating this motion, the Court must, as a matter of law,



draw the inference that favors the plaintiff so long as it is reasonable. N.J. Carpenters Health Fund v. Royal Bank of Scotland Grp., PLC, 709 F.3d 109, 121 (2d Cir. 2013). “[T]he existence of other, competing inferences does not prevent the plaintiff[s’] desired inference from qualifying as reasonable unless at least one of those competing inferences rises to the level of an obvious alternative explanation.” Id. (internal quotation marks omitted).

Where necessary, the Court may supplement the allegations in the complaint with facts from documents either referenced in the complaint or relied upon in framing the complaint. See DiFolco v. MSNBC Cable L.L.C., 622 F.3d 104, 111 (2d Cir. 2010) (“In considering a motion to dismiss for failure to state a claim pursuant to Rule 12(b)(6), a district court may consider the facts alleged in the complaint, documents attached to the complaint as exhibits, and documents incorporated by reference in the complaint.”); Chambers v. Time Warner, Inc., 282 F.3d 147, 153 (2d Cir. 2002) (“[W]here plaintiff has actual notice of all the information in the movant's papers and has relied upon these documents in framing the complaint[,] the necessity of translating a Rule 12(b)(6) motion into one under Rule 56 is largely dissipated.” (quoting Cortec Indus., Inc. v. Sum Holding L.P., 949 F.2d 42, 48 (2d Cir. 1991))).

#### B. Patent Eligibility under § 101

“Section 101 of the Patent Act defines the subject matter eligible for patent protection.” Alice, 134 S. Ct. at 2354. It provides:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent

therefor, subject to the conditions and requirements of this title.

35 U.S.C. § 101. The Supreme Court has repeatedly held that § 101 contains an “important implicit exception” to patent eligibility—namely, it excludes from protection “[l]aws of nature, natural phenomena, and abstract ideas.” Alice, 134 S. Ct. at 2354 (citing Association for Molecular Pathology v. Myriad Genetics, Inc., 133 S. Ct. 2107, 2116 (2013)). The rationale for this principle is that these three categories constitute “the basic tools of scientific and technological work,” and the “monopolization of those tools through the grant of a patent might tend to impede innovation more than it would tend to promote it,’ thereby thwarting the primary object of the parent laws.” Id. (quoting Mayo Collaborative Servs. v. Prometheus Labs., Inc. (“Mayo”), 132 S. Ct. 1289, 1293 (2012)) (alterations omitted). The driving concern behind the exception is to prevent preemption of these basic building blocks of discovery. See Mayo, 132 S. Ct. at 1294.

Particularly with respect to abstract ideas, these exceptions to patent eligibility must not be overstated or broadened beyond the limits of the exception’s purpose. Otherwise, “this exclusionary principles [could] swallow all of patent law.” Alice, 134 S. Ct. at 2354. It must be remembered that ineligibility, and not lack of utility, is what is relevant under § 101. Genetic Techs. Ltd. v. Merial L.L.C., 818 F.3d 1369, 1374 (Fed. Cir. 2016). Nor is § 101 a test as to novelty in the sense of § 102. In other words, that a true invention may not be novel is a question for § 102, not § 101. This exclusionary principles is not intended to preclude protection for a genuine invention that teaches an improvement and is directed to solving a

particular problem, even if the invention invokes or builds upon, for example, an abstract idea. In other words, “an invention is not rendered ineligible for patent simply because it involves an abstract concept.” Alice, 134 S. Ct. at 2354. Nearly all patents could be so described when one uses a high enough level of generality. Clear guidelines as to the appropriate level of generality with which to describe an invention remain elusive.

Patent eligibility under § 101 “is a pure question of law.” Lumen View Tech. LLC v. Findthebest.com, Inc., 984 F. Supp. 2d 189, 204 (S.D.N.Y. 2013). At least one judge of the Federal Circuit has expressed the view that “no presumption of eligibility attends the § 101 inquiry.” Ultramercial, Inc. v. Hulu, LLC, 772 F.3d 709, 717, 720-21 (Fed. Cir. 2014) (Mayer, J., concurring).

Courts have held that it is not always necessary to conduct a claim construction analysis before addressing a § 101 challenge. E.g., Genetic Techs., 818 F.3d at 1374; Internet Patents Corp. v. Active Network, Inc., 790 F.3d 1343, 1348 (Fed. Cir. 2015). However, if a court cannot read and understand a patent without claim construction, then it may not be able to do a § 101 analysis. Here, while the parties have made generalized arguments about claim construction, no particular term in the patent has been put at issue. Accordingly, claim construction is unnecessary for resolution of this motion.

In addition, another issue that arises in § 101 challenges is whether the Court must address each claim individually. Courts have held that it is unnecessary to address each claim of an asserted patent individually as part of a §

101 analysis where one or a subset of claims is “representative” of the others.

Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat’l Ass’n, 776 F.3d 1343, 1348 (Fed. Cir. 2014); see In re Brown, No. 2015-1852, 2016 WL 1612776, at \*1 (Fed. Cir. Apr. 22, 2016). Of course, the doctrine of claim differentiation assumes that there is some difference between each claim in a patent. Comark Commc’ns, Inc. v. Harris Corp., 156 F.3d 1182, 1187 (Fed. Cir. 1998). Claim differentiation has not been raised as an issue here as the basis for a need to address all 25 claims.

### C. The Alice Test

To determine whether claims contain ineligible patent subject matter under § 101, the Court must apply the two-step test introduced in Mayo, 132 S. Ct. 1289, and further explained in Alice, 134 S. Ct. 2347.<sup>4</sup> At the first step, the Court “must determine whether the claims at issue are directed to a patent-ineligible concept” (i.e. a law of nature, natural phenomenon, or abstract idea). Alice, 134 S. Ct. at 2355. This step requires a court to consider the claims “in their entirety to ascertain whether their character as a whole is directed to excluded subject matter.” Internet Patents, 790 F.3d at 1346. At the second step, a court “must examine the elements of the claim to determine whether it contains an inventive concept sufficient to transform the claimed abstract idea into a patent-eligible application.” Alice, 134 S. Ct. at 2357. Thus, a determination that a claim is directed to a patent-

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<sup>4</sup> The now-familiar two step test was initially set forth in Mayo in the context of natural laws. Mayo, 132 S. Ct. at 1296-97. Mayo involved patents claiming a method for measuring metabolites in the bloodstream for the purpose of calibrating appropriate drug dosages; the Court invalidated the patents because the methods were already “well known in the art” and the patented process essentially consisted of “nothing significantly more than an instruction to doctors to apply the applicable laws when treating their patients.” Id. at 1297-98. In Alice, the Supreme Court extended and further elaborated upon the test in relation to abstract ideas, the category of patent-ineligible subject matter that is at issue in relation to the ’693 Patent.

ineligible concept does not end the inquiry. Where, for instance, a claim builds upon an abstract idea by including an inventive concept, the claim will be eligible for patent protection. With the aid of an ever growing number of Federal Circuit decisions interpreting Alice in the two years since that case was decided, below the Court details the contours of the two steps and then distills the considerations that may assist courts in distinguishing between claims that contain a true patentable invention and/or invoke an inventive concept from those that merely seek to monopolize long-understood human activity by transporting it to a technological realm.

#### 1. Step One

The inclusion of the “abstract ideas category” within the list of patent-ineligible subject matter “embodies the longstanding rule that an idea of itself is not patentable.” Alice, 134 S. Ct. at 2355 (quotation marks and alterations omitted). Although the ineligibility of abstract ideas is well-settled, the Federal Circuit recently observed that the Supreme Court “has not established a definitive rule to determine what constitutes an ‘abstract idea’ sufficient to satisfy the first step of the Mayo/Alice inquiry.” Enfish, LLC v. Microsoft Corp., 822 F.3d 1327, 1334 (Fed. Cir. 2016). Rather, the Supreme Court and the Federal Circuit “have found it sufficient to compare claims at issue to those claims already found to be directed to an abstract idea in previous cases.” Id. In Alice itself, the Supreme Court concluded that the claims at issue were directed to the concept of “intermediated settlement” or “the use of a third party to mitigate settlement risk” carried out by a

computer, which the Court concluded easily fell within the realm of “abstract ideas” for purposes of step one. Alice, 134 S. Ct. at 2356-57.

In the brief two-year interval since Alice was decided, the lower courts have had numerous opportunities to delineate the scope of Alice’s boundaries. As stated above, however, that analysis has evaded clear outer limits. Initially, courts struggled with defining the limits of the Mayo/Alice test, but by early 2016 the Federal Circuit has begun to more clearly set guidelines for distinguishing between the core of ineligible subject matter from patents that identify specific improvements in technological processes and therefore properly fall outside of Alice’s purview.

In the cases initially following Alice, the decisions of the Federal Circuit left the impression that any inclusion of an abstract idea in the technological sphere easily satisfied the step one inquiry. Only one of that court’s early post-Alice decisions upheld the eligibility of the patent—and only at step two—after finding that the claimed invention was “necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.” DDR Holdings, LLC v. Hotels.com, L.P., 773 F.3d 1245, 1257 (Fed. Cir. 2014). The near-uniform result of those initial decisions, however, is misleading because those cases generally addressed patent claims in the heartland of the category that Alice instructed would be ineligible for protection.

As the Federal Circuit recently observed in Enfish, the early cases following Alice involved “fundamental economic and conventional business practices,” the

addition of “conventional computer components to well-known business practices,” the “use of an abstract mathematical formula on any general purpose computer,” or recited “a purely conventional computer implementation of a mathematical formula” or “generalized steps to be performed on a computer using conventional computer activity.” Enfish, 822 F.3d at 1335, 1338. The Federal Circuit generally found the claims at issue in those cases ineligible for patent because they merely required generic computer implementation at a high level of generality and failed to effect an improvement in any technology or technical field. See, e.g., Versata Dev. Grp., Inc. v. SAP Am., Inc., 793 F.3d 1306, 1333 (Fed. Cir. 2015); Intellectual Ventures I LLC v. Capital One Bank (USA), 792 F.3d 1363, 1367-68 (Fed. Cir. 2015); Internet Patents, 790 F.3d at 1348; OIP Techs., Inc. v. Amazon.com, Inc., 788 F.3d 1359, 1362-63 (Fed. Cir. 2015); Content Extraction, 776 F.3d at 1347; buySAFE, Inc. v. Google, Inc., 765 F.3d 1350, 1354 (Fed. Cir. 2014); Planet Bingo, LLC v. VKGS LLC, 576 F. App’x 1005, 1008 (Fed. Cir. 2014); Digittech Image Techs., LLC v. Elecs. for Imaging, Inc., 758 F.3d 1344, 1351 (Fed. Cir. 2014). The Federal Circuit was—and has continued to be through its decisions this year—concerned with patent claims of almost unlimited breadth in terms of the concepts and applications covered. See In re BRCA1- & BRCA2-Based Hereditary Cancer Test Patent Litig. (“BRCA”), 774 F.3d 755, 763-64 (Fed. Cir. 2014); see also Genetic Techs., 818 F.3d at 1375 (finding that patent was directed to a natural law under step one because, inter alia, the claim “broadly covers essentially all applications,

via standard experimental techniques, of the law of linkage disequilibrium to the problem of detecting coding sequences of DNA”).

After early challengers had near-uniform success at obtaining rulings that patents were ineligible under § 101, the outer limits of the doctrine have been clarified by the Federal Circuit’s more recent pronouncements earlier this year. In particular, the Federal Circuit took up this task in Enfish, 822 F.3d 1327—decided in May of this year just two weeks before Iron Gate filed the SAC. Enfish required the Federal Circuit to consider the Alice framework in relation to patent claims that were directed to a “self-referential” database that the Court described as “innovative” in that, “[c]ontrary to conventional logical models, the patented logical model includes all data entities in a single table, with column definitions provided by rows in that same table.” Id. at 1330. The Court observed that in contrast to the conventional relational model, the patent’s self-referential model had two new distinguishing features, including the ability to “store all entity types in a single table” and “define the table’s columns by rows in the same table.” Id. at 1332. The specification explained that the invention’s design benefits include “disclos[ing] an indexing technique that allows for faster searching of data than would be possible with the relational model, . . . allow[ing] for more effective storage of data other than structured text, such as images and unstructured text,” and “allow[ing] more flexibility in configuring the database.” Id. at 1333.

Applying Alice step one, the Court in Enfish concluded that, based on the language of the patent claims in conjunction with the specification, the claims were



not directed to the abstract idea of storing, organizing and retrieving memory in a logical table (as the district court had found), but rather were “directed to a specific improvement to the way that computers operate.” Id. at 1336-37. Accordingly, the Court concluded that the claims were patent eligible under § 101, distinguishing the patent at issue from the numerous prior cases involving claims that simply added conventional computer components to well-known business practices or mathematical formulas. Id. at 1338-39.<sup>5</sup>

In addition to being the first Federal Circuit decision to apply the Alice test and reject its application at step one, Enfish provided helpful guidance as to the extent to which step one of Alice poses a genuine hurdle to ineligibility. The Court stated that it “d[id] not read Alice to broadly hold that all improvements in computer-related technology are inherently abstract” requiring that a court immediately move to step two. Enfish, 822 F.3d at 1335. The Court explained that the core question underlying step one is “whether the focus of the claims is on the specific asserted improvement in computer capabilities . . . or, instead, on a process that qualifies as an ‘abstract idea’ for which computers are invoked merely as a tool.” Id. at 1335-36. The Court observed that the “directed to” inquiry at Alice step one “cannot simply ask whether the claims involve a patent-ineligible concept,

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<sup>5</sup> Subsequent to Enfish, the Federal Circuit has held a number of claims to be patent-ineligible under § 101 because, like the many cases that preceded Enfish, they were directed to the use of conventional or generic technology in a well-known environment without providing an inventive solution. See Bascom Glob. Internet Servs., Inc. v. AT&T Mobility LLC, No. 2015-1763, 2016 WL 3514158, at \*5 (Fed. Cir. June 27, 2016) (claims directed to filtering content on the Internet); In re TLI Commc’ns LLC Patent Litig., 823 F.3d 607, 612 (Fed. Cir. 2016) (claim drawn to abstract concept of “classifying an image and storing the image based on its classification”). The Court does not consider these patents to be analogous to the claims in the ’693 Patent.

because essentially every routinely patent-eligible claim involving physical products and actions involves a law of nature and/or natural phenomenon.” Id. at 1335 (emphasis in original). Instead, at step one, patent claims must be “considered in light of the specification, based on whether ‘their character as a whole is directed to excluded subject matter.’” Id. (quoting Internet Patents, 790 F.3d at 1346).<sup>6</sup>

Having considered Enfish, the other cases that have applied Alice, and the policy reasons for excluding claims directed to abstract ideas from eligibility, it is clear that the main thrust behind step one is to determine whether the claim moves beyond a long-understood concept or simply seeks to monopolize one by masking it through the medium of technology. To resolve this question, a court must define the idea, and then ask whether that idea, in all of its generic permutations, essentially constitutes the invention, or whether the invention is to accomplish the abstract idea in a particular way. A court must, in other words, ask whether the claims are directed to a specific implementation to a solution to a problem. The point is not to deem ineligible any task or concept that can possibly be envisioned or performed by the human mind.

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<sup>6</sup> Following Enfish, in Rapid Litig. Mgmt. Ltd. v. CellzDirect, Inc., No. 2015-1570, 2016 WL 3606624 (Fed. Cir. July 5, 2016), the Federal Circuit similarly rejected a § 101 challenge to a patent that the alleged infringer claimed was directed to the natural law that hepatocyte cells are capable of surviving multiple freeze-thaw cycles, id. at \*1. The Federal Circuit found that, rather than being directed simply to the observation and detection of natural processes, the claims were directed to a new, useful and better method of producing a desired preparation of certain cells. Id. at \*4. The Court further found that, even if the claims were directed to a natural phenomenon, it would conclude that the improvements to the existing processes were sufficient to transform the process into an inventive application. Id. at \*6.

## 2. Step Two

At the second step, Alice requires a court to “examine the elements of the claim to determine whether it contains an inventive concept sufficient to transform the claimed abstract idea into a patent-eligible application.” Alice, 134 S. Ct. at 2357. The Court must look to the remaining elements aside from those directed to an abstract idea, either in isolation or combination with the other non-patent-ineligible elements. E.g., Versata, 793 F.3d at 1334; BRCA, 774 F.3d at 764; see also Bascom Global, 2016 WL 3514158, at \*6 (“The ‘inventive concept’ may arise in one or more of the individual claim limitations or in the ordered combination of the limitations.”); I/P Engine, Inc. v. AOL Inc., 576 F. App’x 982, 993 (Fed. Cir. 2014) (Mayer, J., concurring). The Federal Circuit has described the second step as “a search for an inventive concept—a limitation or combination of limitations that is sufficient to ensure that the patent in practice amounts to significantly more than a patent upon an ineligible concept itself.” Versata, 793 F.3d at 1332. Essentially, the objective is to determine whether the claims provide a solution to a problem; it is not intended to replace the requirements for validity (e.g., utility, novelty, non-obviousness).

Reciting “only routine and conventional steps” is insufficient, BRCA, 774 F.3d at 765; see also In re Smith, 815 F.3d 816, 819 (Fed. Cir. 2016) (“[A]ppending purely conventional steps to an abstract idea does not supply a sufficiently inventive concept.”); nor will simply bringing computer technology to bear on an abstract idea suffice as an inventive concept, DDR Holdings, LLC v. Hotels.com, L.P., 773 F.3d 1245, 1256 (Fed. Cir. 2014) (“[R]ecitation of generic computer limitations does not

make an otherwise ineligible claim patent-eligible.”); see also Intellectual Ventures, 792 F.3d at 1368 (collecting cases); Content Extraction, 776 F.3d at 1347-48. A claim will also not involve an inventive concept merely by “relying on a computer to perform routine tasks more quickly or more accurately.” OIP Techs, 788 F.3d at 1363; see also Intellectual Ventures, 792 F.3d at 1367. In other words, “[s]teps that do nothing more than spell out what it means to ‘apply it on a computer’ cannot confer patent-eligibility.” Intellectual Ventures, 792 F.3d at 1370 (quoting Alice, 134 S. Ct. at 2359); see also TLI, 823 F.3d at 615. In contrast, claims that “purport[ ] to improve the functioning of the computer itself or effect an improvement in any other technology or technical field” suffice under step two. Mortgage Grader, Inc. v. First Choice Loan Servs. Inc., 811 F.3d 1314, 1325 (Fed. Cir. 2016) (quoting Alice, 134 S. Ct. at 2359) (quotation marks omitted). An inventive concept may also be present where the claim involves “the non-conventional and non-generic arrangement of known, conventional places.” Bascom Global, 2016 WL 3514158, at \*6.

The Federal Circuit has in only two instances found a claim to be patent-eligible at step two of Alice after concluding that the claims were directed to an abstract idea at step one.<sup>7</sup> First, in DDR, the Federal Circuit held that the patent claims at issue included an inventive concept because the patent claimed a technical solution to a problem unique to the Internet. The problem was that websites instantly lost views upon the click of a link; the claimed invention solved it with a

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<sup>7</sup> In Enfish, the Court declined to reach step two after concluding, at step one, that the claims were not directed to an abstract idea. Enfish, 822 F.3d at 1339.

technical solution that sent the viewer to a hybrid webpage that combined visual elements of the first site with the desired content from the second site. DDR, 773 F.3d at 1248-50, 1257-59. Second, in Bascom Global—a decision issued in the midst of briefing on this motion—the Federal Circuit concluded that claims directed to the abstract idea of filtering content on the Internet nonetheless contained an inventive concept because the claims described the “installation of a filtering tool at a specific location, remote from the end-users, with customizable filtering features specific to each end user” that could constitute an improvement on an existing technological process. Bascom Global, 2016 WL 3514158, at \*6-7. The Court held that, on the limited record before it at the motion to dismiss stage, it could not conclude that the described “specific method of filtering Internet content” was conventional or generic as a matter of law. Id.

Based on the Court’s review of the decisions that have grappled with Alice, the Court has distilled the following list of non-exhaustive questions relevant to the step two analysis:

- (1) Is there an improvement recited?
- (2) Is there a benefit recited?
- (3) Is something new recited?
- (4) Does the patent have one or more particular applications?
- (5) What are the steps and limits to be followed in applying the invention?

Consideration of these questions, among others, allow a court to discern whether a claimed invention merely seeks to apply a conventional concept to a technological setting or actually effect an improvement in some field. The purpose of step two is

to allow genuine inventions that add to human knowledge and capability to obtain patent protection.

### III. DISCUSSION

Lowe's moves to dismiss Count II of the SAC on the sole ground that the '693 Patent is directed to ineligible subject matter under § 101 pursuant to the framework established by Alice and its progeny. At Alice step one, Lowe's contends that the '693 Patent is directed to the abstract idea of organizing data using an index so that newly obtained data can be associated with pre-existing data for purposes of subsequent retrieval, a process that Lowe's asserts can be performed—albeit with less efficiency and accuracy—by the human brain. At Alice step two, Lowe's asserts that the '693 Patent does not contain an adequate inventive concept because it implements the aforementioned abstract concept only through generic computer components that provide conventional computer functionality and because the claimed invention doesn't add anything new in comparison to the prior art.

Iron Gate vigorously contests this characterization of the claimed invention. It argues that the '693 Patent is not simply directed to any type of index and does not merely consist of an automation of well-known processes in the human mind. Iron Gate asserts that the '693 Patent is “directed to a specific methodology for real-time retrieval of data by processing motion data from a sensor in real time, indexing data from the sensor contemporaneously with its capture based on the processed real-time sensor data and pre-existing data, and generating an index by cross-indexing based on that data.” (Pl.'s Opp. Br. at 1, ECF No. 47.) Essentially, Iron Gate contends that the claimed invention allows for real-time processing and

indexing of multimedia data against a pre-existing data set, which combines various components from prior art in a new and innovative way. Iron Gate asserts that, like the patent that the Federal Circuit addressed in Enfish, the claimed invention improves the functioning of prior computer-related data access and storage technology. Finally, Iron Gate argues that, although the Court need not reach Alice step two, the '693 Patent also contains an inventive concept because it proposes a solution to a problem in the prior art—described in the specification—of real-time retrieval of multimedia data. As explained below, the Court agrees that, based on this record at the motion to dismiss stage, at which it cannot make factual findings, the '693 Patent is not directed to an abstract idea within the meaning of Alice step one and, in any event, contains an inventive concept under step two.

#### A. Alice Step One

At step one, the Court asks whether, based on consideration of the claims as a whole in light of the specification, the focus of the claims is on a specific asserted improvement in computer capabilities or instead is on an application of an abstract idea for which computers are merely used as a tool. Enfish, 822 F.3d at 1335-36. Reviewing the claims and the specification in their totality, the Court concludes that the '693 Patent is not simply directed to the abstract idea of generally organizing data using an index. Lowe's summary of the claimed invention mischaracterizes it. If accepted, Lowe's high-level description of the patent would require the Court to read Alice in a way that essentially swallows all of patent law. That is not the aim of Alice step one. See Alice, 134 S. Ct. at 2354; Timeplay, Inc. v. Audience Entm't LLC, No. CV 15-05202 SJO (JCX), 2015 WL 9695321, at \*7 (C.D.

Cal. Nov. 10, 2015). As made clear by Enfish, at step one a court should not construe a patent at too high a level of generality, nor should it broadly find all improvements in computer-related technology to be directed to abstract ideas. Enfish, 822 F.3d at 1335. Doing so would render numerous ideas that are clearly inventive and useful ineligible for patent protection.

For example, the human mind has the capacity to do all sorts of mathematical calculations. These calculations include, for instance, addition, subtraction, multiplication and division. Humans can even perform these calculations in their heads (or with pencil and paper), with extraordinarily large numbers, some with great speed. A basic four-function calculator performs the same mathematical calculations which the human mind is capable of performing, albeit with greater speed, efficiency and accuracy. It seems beyond doubt that a four-function calculator should be eligible for patent protection even under Alice. (Of course, there would be various § 102 and other validity objections if one tried to patent this technology today.) Nonetheless, one could characterize a four-function calculator as an apparatus directed to the abstract idea of executing basic mathematical formulas by means of computer technology. The Court is highly skeptical that, if first invented today, such an invention would be found to be directed to an abstract idea at Alice step one based on this high-level description of the invention.<sup>8</sup> It is worth reemphasizing that Alice is not a novelty test; it is improper to ask under Alice “has this been done before.” That is a novelty question.

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<sup>8</sup> The Court rejects the view that what constitutes an “abstract idea” for purposes of Alice step one means something different today than it would have meant fifty years ago, or two hundred years ago. Abstract ideas capable of existing in the human mind do not change so rapidly.



As discussed above, the principle that an abstract idea is ineligible for patent protection cannot be read to stifle ingenuity by precluding protection for true inventions designed to solve real world problems or provide significant efficiencies. If Lowe's broad summarization of the '693 Patent were to prevail, it would leave little room for any claim to pass muster under step one.

To define the claimed invention for purposes of step one, the Court must read the claims in light of their limitations and the specification to ensure that it fairly describes what those claims are. With respect to the '693 Patent, the Court looks to independent claims 1, 12 and 23 as representative. Here, when one reads the actual language of those claims in conjunction with the specification, proper characterization of the claimed invention requires one to include the limitations of processing motion data from a sensor in real time, indexing data from the sensor at the same time as its capture along with pre-existing data, and generating an index by cross-indexing the real-time data against the pre-existing data. Certain of the dependent claims—specifically, claims 7, 8, 18, and 19—add additional parameters of indexing real time sensor data and pre-existing data in relational and spatio-temporal data structures, while dependent claims 9 and 20 include the parameter of visualizing sensor data contemporaneously with data capture. These limitations are appropriately part of the characterization of the claimed invention at step one.

Thus described, it is clear that the '693 Patent is directed to particular improvements over prior art multimedia data indexing techniques that render such data accessible in real time. At least on the face of the patent, this is a real

invention designed to solve a problem, not mere implementation of the abstract idea of indexing data. Even if the “inventive” aspect of the ’693 Patent is just that it combines and re-organizes a collection of processes and concepts existing in the prior art, that does not mean the claims are directed to an abstract idea ineligible for patent protection. Moreover, unlike the Federal Circuit cases that fell in the heartland of the broad preemption of human activity that Alice and the principles behind it seeks to prevent, the ’693 Patent cannot be aptly described as directed, for example, to the addition of conventional computer components to well-known business practices, computer implementation of a mathematical formula, generalized steps (existing outside of the realm of computers) to be performed through conventional computer activity, or other concepts that can be formulated and implemented entirely within the human mind. The claims in the ’693 Patent do not merely use a computer as a medium for implementing a conventional, well-understood capability. Additionally, especially at this early stage where the Court cannot make factual findings, it is not clear that the contemporaneous processing and indexing described in the ’693 Patent is something which the human mind can perform.<sup>9</sup>

Instead, the ’693 Patent is similar in character to the claims discussed in Enfish, where the Federal Circuit held that step one was not met because the claimed invention was “directed to a specific improvement to the way that

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<sup>9</sup> Although Lowe’s cites two extrinsic documents that it asserts support the view that the human mind is essentially capable of performing (at least on a rudimentary level) the processes described in the ’693 Patent (see Def.’s Opening Br. at 10-11, ECF No. 42; Regan Decl., Exs. C, D, ECF No. 43), neither of these sources adequately show this even if such materials may appropriately be considered on this motion to dismiss.

computers operate.” Enfish, 822 F.3d at 1336-37. As discussed above, in Enfish the Court found that the patent at issue was directed to a certain type of innovative database that contained new features over the prior art that conferred speed, efficiency and flexibility benefits. Id. at 1332-33. Like Enfish, the ’693 Patent describes problems in the prior art that the claimed invention seeks to—and, at least according to the specification, does—overcome. In particular, the ’693 Patent explains that none of the prior art’s indexing techniques allow indexing to be accomplished contemporaneously with the capture of multimedia data, but that the claimed invention allows this end to be achieved, providing benefits that include real-time cross-indexing of data and storage of relevant data alone, two functions that could not have been performed through existing data indexing techniques. As a result, like the patent in Enfish, the ’693 Patent overcomes a problem specifically arising in a particular technological context and it does not merely seek to monopolize an abstract idea capable of being performed in the human mind merely by using a computer to perform a task more quickly.

Lowe’s counters that Enfish is distinguishable, and that the ’693 Patent is directed to an abstract idea, because the claims here contain broad and abstract language allowing for generic application to any type of data and only recite generalized conventional computer components. (Def.’s Reply Br. at 5-7, ECF No. 49.) Although overly broad claim language may be relevant to whether a patent merely seeks to capture an ineligible abstract idea, the fact that a claim uses vague or indefinite language is not dispositive for this inquiry. Where the patent explains

how the claimed process improves upon prior multimedia data indexing techniques, thus enhancing a process that operates solely within the technological realm itself, the claimed invention will survive step one. That being said, this determination at this stage does not mean that Lowe's is left without opportunity to challenge the '693 Patent at a later stage after development of a factual record, or based on a different sort of argument. For instance, the breadth and/or lack of clarity of the claim language could potentially serve as the basis for an indefiniteness challenge under § 112. See Nautilus, Inc. v. Biosig Instruments, Inc., 134 S. Ct. 2120, 2124 (2014).

#### B. Alice Step Two

Although the Court could end its analysis at Alice step one, the Court further concludes that, even if the '693 Patent is directed to an abstract idea, the claimed invention passes muster at step two because it contains an inventive concept sufficient to transform that idea into a patent-eligible application. At the outset, the Court notes the posture of this motion and the limited scope of the inquiry that is appropriate for Alice step two.

First, the Court must be careful, on this threshold § 101 eligibility challenge, not to delve into whether the '693 Patent is invalid under §§ 102 or 103 for lack of novelty or non-obviousness. Parker v. Flook, 437 U.S. 584, 588 (1978) ("This case turns entirely on the proper construction of § 101 of the Patent Act, which describes the subject matter that is eligible for patent protection. It does not involve the familiar issues of novelty and obviousness that routinely arise under §§ 102 and 103 when the validity of a patent is challenged." (footnote omitted)); CLS Bank Int'l v.

Alice Corp. Pty. Ltd., 717 F.3d 1269, 1282-83 (Fed. Cir. 2013); Chamberlain Grp., Inc. v. Linear LLC, 114 F. Supp. 3d 614, 627 (N.D. Ill. 2015); see also 35 U.S.C. §§ 102, 103. Lowe’s essentially asks this Court to peek at whether the claimed invention is novel and non-obvious by asking the Court to compare the ’693 Patent to prior art in the field of multimedia data indexing. The proper question is instead whether the claims contain an inventive concept beyond any abstract idea to which they are purportedly directed.

Second, the Court is not in a position on this record to make findings of fact as to whether the advantages over prior art asserted in the specification are correct. See TLI, 823 F.3d at 613-14 (stating that court “must be mindful of extraneous fact finding outside the record, particularly at the motion to dismiss stage” in relation to § 101 eligibility determination). Rather, the Court must accept the specification’s assertions—at least with respect to the claimed invention’s advantages over prior art—to be true on their face.

With the foregoing in mind, the Court believes that many of the same aspects that support the determination that the ’693 Patent is not directed to an abstract idea at Alice step one also support the conclusion that, even if it were so directed, the claims nonetheless contain an inventive concept.<sup>10</sup> For instance, the claimed

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<sup>10</sup> Alice and the Federal Circuit decisions that have followed leave unclear at which step certain of the relevant factors should be considered. In some cases, such as Enfish, courts have undertaken a rigorous analysis of various factors that seem to bear on the inventiveness of the claim at step one. See Enfish, 822 F.3d at 1326-39. In others, courts have quickly dispensed with step one and then focused their energies on what the claimed invention purports to actually do at step two. See DDR, 773 F.3d at 1257-59. In this case, if not in most others, the questions that bear on each of the two steps have significant overlap. A number of courts have aptly observed that it is easier to separate the two steps in recitation than in application and that the two steps could arguably be collapsed into a single one. E.g., Timeplay, 2015 WL 9695321, at \*3-4; McRO, Inc. v. Atlus U.S.A., No. SACV

invention purports to improve upon existing multimedia data indexing techniques by allowing for indexing to occur contemporaneously to capture, which confers advantages that had not been achieved in the prior art. At this stage, where the Court cannot make factual findings and lacks sufficient information about the field of invention to know whether it is reasonable to accept the contention that the real time processing and indexing of multimedia data is “inventive” in the relevant sense, the claimed invention passes muster under Alice step two.

Lowe’s argues that the ’693 Patent merely combines various elements from prior art and essentially adds nothing new to that prior art, and therefore the claims do not contain an inventive concept for purposes of § 101. The Court rejects this argument. While the fact that the invention does not add much beyond prior art (if true) may very well support a determination that the ’693 Patent is invalid under §§ 102 or 103, the Court is unconvinced that this argument supports an ineligibility determination under § 101. That a patent claim adds little to prior art—which itself previously received patent protection—does not mean that the claim lacks an inventive concept vis-à-vis an abstract idea. That logical step is only true if the prior art itself consisted of or was directed to an abstract idea. Although the Court recognizes that long-since patented prior art might not have passed muster under Alice, the fact that the prior art upon which the ’693 Patent builds has received patent protection is at least minimally supportive of the view that these claims are not directed to an abstract idea at step one.

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13-1870-GW(FFMX), 2014 WL 4772196, at \*4 (C.D. Cal. Sept. 22, 2014). Whatever the merits of that view, the Court has adhered to the traditional two-step framework here, as this has been the approach of the Federal Circuit to date.

Accordingly, on this pleading stage motion, where the Court cannot resolve factual disputes as to whether the claimed invention truly adds to the prior art (or something categorically different from that which the human mind can perform), the Court must find that Iron Gate has sufficiently shown that the '693 Patent contains an inventive concept for purposes of Alice step two. Of course, should Lowe's marshal facts on a more developed record that support its position that the '693 Patent does not actually contain anything inventive or merely implements abstract concepts regarding data indexing, Lowe's may very well be able to demonstrate that the claimed invention is not patent eligible under § 101.<sup>11</sup>

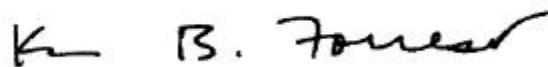
#### IV. CONCLUSION

For the reasons set forth above, Lowe's motion to dismiss Count II of Iron Gate's Second Amended Complaint is DENIED. Should Lowe's wish to raise a § 101 challenge against the '693 Patent at a later stage on a more fulsome record, it has leave to do so.

The Clerk of Court is directed to close the motion at ECF No. 41.

SO ORDERED.

Dated: New York, New York  
August 3, 2016




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KATHERINE B. FORREST  
United States District Judge

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<sup>11</sup> Although not raised on this motion, the Court again notes that the '693 Patent could potentially have novelty, obviousness and indefiniteness issues that may render at least some of the claims invalid under §§ 102, 103, and 112. The Court takes no position on these issues at this time.